

What is claimed is:

1. A system for managing a mobility service in Internet protocol networks, comprising:

5 a gateway means for managing interfacing with Internet and location information of a mobile host;

a transfer means with a plurality of hierarchical nodes and a switching function, for connecting the gateway means with the mobile host, where each of the nodes includes a multiplicity of base stations; and

10 a storage means for storing the location information of the mobile host.

2. The system as recited in claim 1, wherein the gateway means manages the interfacing with Internet and the storage means for managing the location information of the mobile host, and adds additional header data to packet data received for the data transmission to the mobile host, wherein the additional header data represents the location information of the mobile host.

20 3. The system as recited in claim 2, wherein the transfer means having the plurality of hierarchical nodes and the switching function periodically broadcasts domain identification and an identification of a base station through a beacon.

4. The system as recited in claim 2, wherein the mobile host interfaces with the base station via a wireless network, transmits location registration message to the base station when the mobile host enters into a new domain, and transmits location update message when it moves to a new node within the domain.

5. A method for managing a mobility service in internet protocol networks, the method comprising the steps of:

(a) receiving a location registration message or a location update message, which is generated responsive to a movement of a mobile host, through a node having a hierarchical architecture;

(b) storing the received location registration message or the received location update message in a database; and

(c) transferring a packet to the location of the mobile host contained in the location registration message or the location update message, through the node having the hierarchical architecture.

6. The method as recited in claim 5, wherein the location registration message or the location update message includes an identification of a user and an identification of the base station in which the user locates.

7. A computer-readable medium storing a program, in a mobility management system with a mass storage processor, for

implementing the functions of:

receiving location registration message or location
update message, which are generated responsive to the movement
of a mobile host, through a node having a hierarchical
5 architecture;

storing the received location registration message or the
received location update message in a database; and

transferring a packet to the location of the mobile host
contained in the location registration message or the location
10 update message, through the node having the hierarchical
architecture.